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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,879

04/24/2006

Yoshito Otake

028359-00003

6925

4372 7590 09/16/2009
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EXAMINER

SNELTING, JONATHAN D

ART UNIT

PAPER NUMBER

3652

NOTIFICATION DATE

DELIVERY MODE

09/16/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com
IPMatters@arentfox.com
Patent_Mail@arentfox.com

Office Action Summary	Application No. 10/562,879	Applicant(s) OTAKE ET AL.	
	Examiner Jonathan D. Snelting	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/29/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “mode switch means for switching” (presumed to correspond to the dead man switch in the specification) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1-6 are objected to because of the following informalities:
- Claim 1 recites “A component transportation and installation device which is a device” in lines 1-2, which appears to be merely a repetition of the limitation “device.” It is suggested that “which is a device” be removed from the claim.
 - Claim 2 recites “A component transportation and installation method which is a method” in lines 1-2, which appears to be merely a repetition of the limitation “method.” It is suggested that “which is a method” be removed from the claim.
 - Claim 3 recites “A component transportation and installation method which is a component transportation and installation method” in lines 1-2, which appears to be merely a repetition of the limitation “component transportation and installation method.” It is suggested that “which is a component transportation and installation method” be removed from the claim.
 - Claim 4 recites “A component transportation and installation device which is a transportation and installation device” in lines 1-2, which appears to be merely a repetition of the limitation “transportation and installation device.” It is suggested that “which is a transportation and installation device” be removed from the claim.
 - Claim 5 recites “A component transportation and installation method which is a component transportation and installation method” in lines 1-2, which appears to be merely a repetition of the limitation “component transportation and installation method.” It is suggested that “which is a component transportation and installation method” be removed from the claim.

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- Claim 6 recites “A component transportation device which is a device” in lines 1-2, which appears to be merely a repetition of the limitation “device.” It is suggested that “which is a device” be removed from the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1 and 2 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

5. The specification does not describe “controlling that actuator according to a set value” in such a way as to enable one skilled in the art to make or use the invention. The specification only mentions “setting value” in the same context as is mentioned in the claims, which does not provide sufficient enablement for one skilled in the art.

6. Claim elements “first control means of controlling the actuator...and performing drive control” and “second control means of performing assist control...and performing drive control” are means (or step) plus function limitations that invoke 35 U.S.C. 112, sixth paragraph. However, the written description fails to disclose the corresponding structure, material, or acts for the claimed function.

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Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant is required to clarify the record by either:

(a) Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b) Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claims 1-3, 5, and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim elements “first control means of controlling the actuator...and performing drive control” and “second control means of performing assist control...and performing drive control” are means plus function limitations that invoke 35 U.S.C. 112, sixth paragraph. However, the written description fails to clearly link or associate the disclosed structure, material, or acts to the claimed function such that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function.

Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it clearly links or associates the corresponding structure, material, or acts to the claimed function without introducing any new matter (35 U.S.C. 132(a)); or

(c) State on the record where the corresponding structure, material, or acts are set forth in the written description of the specification that perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

9. Claim 1 recites “an installed component” in lines 2-3 and again in lines 4-5. It is not clear whether these are the same element or different elements.

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10. Claim 2 recites “and the like” in the last line, which renders the claim indefinite because the claim includes elements not actually disclosed (those encompassed by “and the like”), thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(d).

11. Claim 3 recites “the installing section” in line 6, which lacks proper antecedent basis in the claim.

12. Claim 5 recites “the time of completion of installing” in line 8, “the automatic transportation mode” in lines 14-15, and “installation of the installed component” in lines 19-20; which lack proper antecedent basis in the claim.

13. Claim 5 recites “it” in lines 4 and 10 and “this” in line 9, which are indefinite. It is not clear to which element(s)/step(s) the applicant is referring.

14. Claim 5 recites “an installed component” in line 3 and “at least two installed components” in line 16, which is indefinite. It is not clear how many installed component(s) are being claimed.

15. Claim 6 recites “the installation position” in line 8, which lacks proper antecedent basis in the claim.

16. Claim 6 recites “it” in line 12, which is indefinite. It is not clear to which element the applicant is referring.

17. Claim 6 recites “an installed component” in line 2 and “at least two installed components” in line 15, which is indefinite. It is not clear how many installed component(s) are being claimed.

Claim Rejections - 35 USC § 102

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

19. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe (JP 08282998 A).

20. Consider claim 1. Abe teaches a component transportation and installation device which transports and installs an installed component (19) in an installation position (proximate B, C) of a receiving body (proximate C, fig. 5) comprising a grip mechanism (6); component transportation means (1-5) of moving the grip mechanism with an actuator (11, 25-28); first control means (39, see paragraph 0035 of attached English translation) of controlling the actuator according to a set value and performing drive control; second control means (11, see paragraph 0036 of attached English translation) of performing assist control of the actuator and performing drive control; and mode switch means (33) for switching the first control means and the second control means.

21. Consider claim 2. Abe teaches a component transportation and installation method of transporting and installing an installed component (19) in an installation position (proximate B, C) of a receiving body (proximate C, fig. 5) using component transportation means (1-5) having an actuator (11, 25-28); performing transportation and installation by selecting an actuator automatic control step (see paragraph 0035 of

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attached English translation) of automatically transporting and installing the installed component in the installation position, or an actuator assist control step (see paragraph 0036 of attached English translation) of reducing a burden of a worker who performs the operation at an arbitrary time.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe (JP 08282998 A) in view of Kiyuukazi et al. (JP 2000210824 A), hereafter referred to as Kiyuukazi.

24. Consider claim 3. Abe teaches a component transportation and installation method including a step of installing an installed component (19), transported near an installation position (proximate B, C), in a receiving body (proximate C, fig. 5), by positioning the installed component in an installing section (proximate C, fig. 5) of the receiving body by operating the installed component in an assist mode (see paragraph 0036 of attached English translation); installing the positioned installed component in the receiving body; and moving a grip mechanism (6) to a predetermined position in an automatic mode (proximate A, B).

Abe does not explicitly teach installing the positioned installed component automatically. Kiyuukazi teaches installing a positioned installed component (tire)

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automatically (via stereo camera 90, see paragraphs 0032-0035 of attached English translation). It would have been obvious to a person having ordinary skill in the art to modify Abe's installing step with Kiyuukazi's automatic installing step in order to improve the safety of the worker.

25. Consider claim 4. Abe teaches a component transportation and installation device for installing an installed component (19) in a receiving body (proximate C, fig. 5) comprising a grip mechanism (6); component transportation means (1-5) with an actuator (11, 25-28) for transporting the grip mechanism; means ("A worker...performs attachment work by self manual labor," see paragraph 0036 of attached English translation) to install the installed component in an installing section (proximate B, C) of the receiving body; operation of the actuator can switch between an automatic mode (see paragraph 0035 of attached English translation) and an assist mode (see paragraph 0036 of attached English translation); and control means to select the assist mode when positioning the installed component (see paragraph 0036 of attached English translation).

Abe teaches installing the installed component by "self manual labor," but does not explicitly teach an installation mechanism. Kiyuukazi teaches an installation mechanism (fig. 7). It would have been obvious to a person having ordinary skill in the art to modify Abe's device with Kiyuukazi's installation mechanism in order to improve the safety of the worker.

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26. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe (JP 08282998 A) in view of Ishihara et al. (JP 09210116 A), hereafter referred to as Ishihara.

27. Consider claim 5. Abe teaches a component transportation and installation method of transporting an installed component (19) in a component supply position (proximate A) toward an installation position (proximate B, C) with gripping by a grip mechanism (6) in a receiving body (proximate C, fig. 5), returning the grip mechanism to the component supply position (proximate A, see paragraph 0037 of attached English translation), and repeating (see paragraphs 0035 and 0037 of attached English translation); switching between an automatic mode (see paragraph 0035 of attached English translation) and an assist mode (see paragraph 0036 of attached English translation); performing switching to an automatic transportation mode (see paragraph 0035 of attached English translation) after gripping the installed component and automatically transporting the installed component nearby the installation position; making the grip mechanism return to the component supply position in the automatic mode (see paragraph 0037 of attached English translation); transporting and installing installed components in the installation position (see paragraphs 0035-0036 of attached English translation).

Abe does not explicitly teach conveying the receiving body with pitch feed and installing at least two components in a stop period of one pitch feed. Ishihara teaches conveying a receiving body (50) with pitch feed and installing two components (12) in a stop period of one pitch feed (see paragraph 0040 of attached English translation). It

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would have been obvious to a person having ordinary skill in the art to modify Abe's device with Ishihara's conveying a receiving body in order to increase throughput.

28. Consider claim 6. Abe teaches a component transportation device for transporting and installing an installed component (19) in a receiving body (proximate C, fig. 5); a grip mechanism (6) which grips the installed component in a component supply position (proximate A); and component transportation means (1-5) of transporting the grip mechanism to an installation position (proximate B, C) in an automatic transportation mode (see paragraph 0035 of attached English translation) or an assist transportation mode (see paragraph 0036 of attached English translation) and returning in the automatic transportation mode (see paragraph 0037 of attached English translation) to the component supply position when installation is completed.

Abe does not explicitly teach receiving body transportation means for performing pitch feed, and the grip mechanism can transport at least two components in a stop period of one pitch feed. Ishihara teaches receiving body (50) transportation means (28) for performing pitch feed, and a grip mechanism (30) can transport at least two components (12) in an installation position (proximate S1) in a stop period of one pitch feed (see paragraph 0040 of attached English translation). It would have been obvious to a person having ordinary skill in the art to modify Abe's device with Ishihara's receiving body transportation means in order to increase throughput.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following is a list of pertinent prior art:

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- Kuchler (Pub. No. 2003/0200848) teaches a slicing machine with automatic and manual assist modes.
- Parker et al. (Pub. No. 2003/0049098) teach a robot with automatic and manual control modes.
- Ichikawa et al. (Patent No. 4,837,734) teach a robot with automatic and manual control modes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan D. Snelting whose telephone number is 571-270-7015. The examiner can normally be reached on Monday to Friday 8:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Saúl J. Rodríguez/

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Supervisory Patent Examiner, Art
Unit 3652

/Jonathan D Snelting/
Examiner, Art Unit 3652